HUMPBACK WHALES IN THE MAGELLAN STRAIT, CHILE. *(POSTER)* The humpback whale (*Megaptera novaeangliae*) population in southeastern Pacific breeds in Colombian coastal waters in the austral winter and feeds in Antarctic Peninsula during summer. Between these migratory end points little is known. Surveys along Chilean Patagonian channels and the Magellan Strait from 1997 to 2000 showed seasonal presence of humpback whales from spring to fall. We investigated humpback whales in the Magellan Strait and Otway Sound to examine if the area represents a regular feeding ground or a migratory route for the species. Sixteen dedicated surveys of 2 to 5 days were carried out, spanning 46 days in 14 diferent months from January 1999 to June 2000 to determine behavior, residence and site fidelity of individual humpback whales. Research was undertaken by direct observation of whales and by photoidentification. A total of 23 individuals of 76 humpback whale groups were identified and catalogued. Residence was established during the austral summer from seven individuals: one whale stayed for a five-month interval, three for 3 months and three during a two-month interval. Two whales sighted in 1999 returned to the area in 2000. Feeding activities were both observed and suggested by co-occurrence of sea lions and marine birds with whales in foraging behaviours. These preliminary results support the hypothesis that the study area is a regular feeding ground for humpback whales. Historical records also show that the area has been occupied by whales since the Fifteenth Century, providing additional evidence that the place has been a traditional and regular feeding site. Comparisons looking for matches in photographs with individual humpback whales catalogued from Colombia and Antarctic Peninsula are in progress. The analysis described here represents a preliminary framework for a planned assessment of humpback whales in the Patagonia.

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STOCK STRUCTURE IN 'AUSTRALIAN' HUMPBACK WHALES REVISITED. *(ABSTRACT)* Humpback whales (*Megaptera novaeangliae*) that migrate from Antarctic waters along the east and west coasts of Australia during the winter months are thought to comprise distinct stocks. Support for this segregated migration has come primarily from genetic analyses of female lineages through mitochondrial DNA, where a small but statistically significant difference in haplotype frequencies has been shown. However, results for biparentally inherited genes do not support the conclusion of separate stocks because estimates of genetic differentiation at nuclear microsatellite loci between whales from the east and west coast are not significantly different to zero. This finding reflects similar studies from the Northern Hemisphere and suggests that stock boundaries be reappraised. The results of other research also alludes to weaker population structure than thought previously in that only about half the presumed female population on the east coast makes the northward migration each year. Estimates of population size from direct whale counts should consider all regional migration paths and fluctuations in numbers on any one path.

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HUMPBACK WHALES OF THE ARCHIPIELAGO REVILLAGIGEDO, PACIFICO MEXICANO, 1996-2000: GENERAL POPULATION CHARACTERISTICS. *(ABSTRACT)* The Archipiélago Revillagigedo consists of four small volcanic islands 375-575 miles west of mainland Mexico, and 250 miles south of the Baja Peninsula. Photographic identification studies of humpback whales (*Megaptera novaeangliae*) wintering at Isla Socorro, the largest island, were conducted with varying effort (0.5 to 3 months) from 1986 to 1995. In 1996 we began a long-term detailed study with 2.5-3 month long field seasons. Preliminary results have confirmed the unusually high resighting rates previously observed. From 1996-1999 we identified 573 individuals at Isla Socorro, with 28.7% sighted in more than one year. An average of 49.0% of whales sighted in a season were sighted on more than one day during that season. Of the 180 individuals identified in 1999, 47.2% had been sighted in at least one of the previous three years. The sex of 198 individual whales (48 females, 150 males) was determined by behaviour. Males had greater maximum and average intervals between first and last sightings within a season (79 and 19.1 days respectively) than females (50 and 15.2 days). In 1998 and 1999 we also surveyed at Isla Clarion (200 miles west of Isla Socorro) and 60.6% of the 127 whales identified there also were sighted at Isla Socorro during 1996-1999. We observed 31 within-season transits between islands, primarily by males. Data from the 2000 field season at both islands will be incorporated into the above analyses, and mark-recapture population estimates will be made using the entire five year database.

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